

# PATENT SPECIFICATION

860,208

DRAWINGS ATTACHED.

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## COMPLETE SPECIFICATION.

### Clothes Dryer.

We, L. G. HAWKINS & COMPANY LIMITED, a British Company, of 30/35 Drury Lane, Kingsway, London, W.C.2, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement :—

The present invention consists in a clothes dryer and airer comprising a base part carrying an electric heating element and a vertically extensible and collapsible clothes rack comprising two spaced "lazy-tongs" end frames interconnected by horizontal bars on which the clothes are to be hung, the bottom end of one of the lower members of each end frame being pivotally secured to the base part in a position in which the rack can be erected above the heating element, and means being provided for releasably holding the other lower members of each frame to the base part when the rack is erected, the rack being collapsible against the base part when the holding means are released, the electric heating element being mounted in a perforated housing and having a heat deflector mounted thereabove (which deflector may form part of the perforated housing) which also serves the purpose of preventing water which drips from the clothes from falling on the heating element.

The invention also consists in a clothes dryer and airer comprising a base part having a pair of end walls between which is mounted a perforated housing containing an electric heating element, and a vertically extensible and collapsible clothes rack comprising two spaced "lazy-tongs" end frames interconnected by horizontal bars on which the clothes are to be hung, the bottom end of one of the lower members of each end frame

being pivotally secured to the end walls of the base part in a position in which the rack can be erected above the heating element, and means being provided for releasably holding the other lower members of each frame to the end walls of the base part when the rack is erected, the rack being collapsible against the base part when the holding means are released, and a heat deflector plate mounted above the perforate housing and the heating element therein, said deflector plate also serving the purpose of preventing water which drips from the clothes from falling on the heating element.

According to a feature of the invention, the base part also incorporates a drip tray which extends between the end walls beneath the perforated housing.

In order that the invention may be more readily understood, reference will now be made to the accompanying drawing, in which :—

Fig. 1 is a perspective view of a clothes dryer and airer according to one embodiment of the invention, in an extended position; and

Fig. 2 is an end elevation of the device shown in Fig. 1 in the collapsed position.

Fig. 3 is a perspective view on an enlarged scale of a part of the base part and drip tray to which a flap is pivotally connected.

Referring to the drawing, the dryer 1 comprises a base part consisting of two end walls 2, conveniently made from metal, having peripheral flanges, 2a, 2b to the upper flange 2a of which is secured a metal box-like housing 3. Disposed within the housing 3 is an electric heating element 4 formed from coiled wire mounted in a horizontal zig-zag pattern around ceramic portions of a supporting frame. The supporting frame is

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rigidly secured to but spaced from the lower surface of the housing 3. The housing 3 is perforated, and a heat deflector 5 in the form of a V-shaped metal plate is positioned thereabove and is secured to the upper flanges 2a. The deflector 5 is disposed directly above the heating element 4 so that it serves to prevent water which drips from clothes being dried from falling onto the element 4. Both the housing 3 and the deflector 5 are secured to the flanges 2a by self-tapping screws 17.

The rack 6 is conveniently made of wood comprising two end frames 7 of the "lazy-tongs" type, the corresponding ends and centres of the collapsible members 7 of each frame being interconnected by means of wooden bars 8 which pass through the inner members 7 of the frame and are secured in recesses in the outer members 7 thereof. The said inner members 7 of the frame may therefore turn about the bars 8 when the rack is extended or collapsed. Further wooden bars 9 are provided which interconnect intermediate points of the members 7.

The bar 8 connecting the bottom ends of one of the lower members 7 of each frame extends through apertures defined by the flanges 2a and brackets 18 mounted on the upper flanges 2a and is thereby pivotally connected to the end walls 2 of the base part, with the frames lying outside the said end walls 2. The bar 8 interconnecting the bottom ends of the other lower members 7 of each frame is adapted, when the rack 6 is raised, to engage in recesses 10 formed by a metal strip 19 secured, for example by spot welding, along the upper flanges 2a, so as thereby to hold the rack in the erected position. A strip of metal 11 is pivoted to each of the strips 19 between the recesses 10, and may be swung across the recesses 10 to retain the bar 8 therein. Two or more recesses 10 are provided along each strip 19, so that by engaging the bar 8 in one or other of the pairs of recesses 10, the height to which the rack is erected may be adjusted.

To the lower portions of the peripheral flanges 2a, 2b of the end walls 2 is secured, for example by spot welding, a drip tray 12 provided at each side with a hinged flap 20. Each flap may be rotated from the closed position, in which the flap is vertical, when the dryer is not in use, to the open position shown in Fig. 2 when the dryer is in use.

As can be seen from Fig. 3 each flap 20 is provided with a pair of part circular end walls 21, each formed at its radial edge remote from the flap 20 with an outwardly projecting flange 22. The flap 20 is rigidified by a longitudinal rib 23 pressed from the flap 20 and also by an angle strip 24 of metal secured by spot welding adjacent the lower horizontal edge of the flap 20. The flap 20 pivots about a flange 12a bent up from the drip tray 12, which flange 12a engages in the

channel between the flap 20 and strip 24. The flap 20 is held in engagement with the flange 12a by leaf springs 25 secured to the upper flanges 2a of the end walls, the spring 25 engaging the upper edges of the end walls 21. The outwardly projecting flanges 22, when the flap 20 is fully opened as shown in Fig. 3, engage behind the side flanges 2b. In the closed position the flap 20 abuts the end 25a of the leaf spring 25.

The end walls 2 of the base part are provided on their inner faces with hook members 14 around which the lead wire (not shown) to the heating element 4 may be wound when the dryer is not in use. The heating element 4 is preferably of the "black heat" type.

When not in use the rack 6 may be collapsed against the base part. A spring clip 15 is provided for holding the rack 6 in the collapsed position so that it will not open up when the device is carried. A handle 16 is secured to one end wall of the base part to facilitate carrying.

It will be understood that various modifications may be made without departing from the scope of the present invention. For example the end walls of the base part may be formed from wood, and the drip tray may be slidably mounted in channels provided in or on the end walls.

Moreover the perforated housing may be provided with an imperforate portion, preferably of V-shape, above the heating element, which portion constitutes the deflector.

#### WHAT WE CLAIM IS:—

1. A clothes dryer and airer comprising a base part carrying an electric heating element and a vertically extensible and collapsible clothes rack comprising two spaced "lazy-tongs" end frames interconnected by horizontal bars on which the clothes are to be hung, the bottom end of one of the lower members of each end frame being pivotally secured to the base part in a position in which the rack can be erected above the heating element, and means being provided for releasably holding the other lower member of each frame to the base part when the rack is erected, the rack being collapsible against the base part when the holding means are released, the electric heating element being mounted in a perforated housing and having a heat deflector mounted thereabove which also serves the purpose of preventing water which drips from the clothes from falling on the heating element.

2. A clothes dryer and airer as claimed in Claim 1, wherein the deflector forms part of the perforated housing.

3. A clothes dryer and airer comprising a base part having a pair of end walls between which is mounted a perforated housing containing an electric heating element, and

- a vertically extensible and collapsible clothes rack comprising two spaced "lazy-tongs" end frames interconnected by horizontal bars on which the clothes are to be hung, the bottom end of one of the lower members of each end frame being pivotally secured to the end walls of the base part in a position in which the rack can be erected above the heating element, and means being provided for releasably holding the other lower members of each frame to the end walls of the base part when the rack is erected, the rack being collapsible against the base part when the holding means are released, and a heat deflector plate mounted above the perforate housing and the heating element therein, said deflector plate also serving the purpose of preventing water which drips from the clothes from falling on the heating element.
4. A clothes dryer and airer as claimed in Claim 3, wherein the base part incorporates a drip tray which extends between the end walls beneath the perforated housing.
5. A clothes dryer and airer as claimed in Claim 4, wherein the drip tray is provided with hinged flaps at each end thereof.
6. A clothes dryer and airer as claimed in any of Claims 3 to 5, wherein the means for releasably holding the other lower members of each frame to the end walls comprises one or more pairs of notches formed from strip metal secured to the end walls within which the horizontal bar interconnecting the bottom end of said other lower members of each end frame is adapted to be located.
7. A clothes dryer and airer as claimed in Claim 6, wherein a metal strip is pivoted adjacent each notch, which strip is adapted to be pivoted to lie across the notch when the rack is extended to retain the bar in the notch.
8. A clothes dryer and airer as claimed in any preceding claim, wherein the heat deflector is in the form of a V-shaped metal plate.
9. A clothes dryer and airer as claimed in any preceding claim, wherein means are provided for retaining the rack against the base part when the rack is in the collapsed position.
10. A clothes dryer and airer constructed substantially as hereinbefore described with reference to Figs. 1 to 3 of the accompanying drawing.
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#### PROVISIONAL SPECIFICATION.

##### Clothes Dryer.

- We, L. G. HAWKINS & COMPANY LIMITED, a British Company, of 30/35 Drury Lane, Kingsway, London, W.C.2, do hereby declare this invention to be described in the following statement:—
- The present invention consists in a clothes dryer and airer comprising a base part carrying an electric heating element and a vertically extensible and collapsible clothes rack comprising two spaced "lazy-tongs" end frames interconnected by horizontal bars on which the clothes are to be hung, the bottom end of one of the lower members of each end frame being pivotally connected to the base part in a position in which the rack can be erected above the heating element, and means being provided for releasably holding the other lower members of each frame to the base part when the rack is erected, the rack being collapsible against the base part when the holding means are released.
- According to a feature of the invention, the base part also incorporates a removable drip tray.
- In one embodiment of the invention, the dryer comprises a base part consisting of two end walls, conveniently made of wood, which are held spaced apart by a metal box-like housing for an electric heating element, opposite ends of the housing being secured to the end walls. The housing is perforated and carries thereabove a heat deflector which may be in the form of a V-shaped metal plate.
- The rack is conveniently made of wood comprising two end frames of the "lazy-tongs" type, the corresponding ends and centres of the collapsible elements of each frame being interconnected by means of wooden bars. Further wooden bars may, if desired, interconnect intermediate points of these members.
- The bar connecting the bottom ends of one of the lower members of each frame extends through corresponding apertures in the end walls of the base part and forms a pivotal connection therewith, the frames lying outside the said end walls. The bar interconnecting the bottom ends of the other lower members of each frame is adapted to engage in recesses formed in the top edge of the end walls when the rack is raised so as thereby to hold the rack in the erected position. Two or more pairs of notches may, if desired, be provided so as to adjust the height to which the rack is erected.
- At the bottom of the base part is provided a drip tray. This may be mounted in inwardly facing horizontal channels so that

the drip tray may be slid out from the base part to empty out any drip water which collects therein.

- 5 The end walls of the base part may also be provided on their inner faces with hook members around which the lead wire to the heating element may be wound when the dryer is not in use. The heating element is preferably of the "black heat" type.

- 10 When not in use the rack may be collapsed

against the base part. A clip may be provided for holding the rack in the collapsed position so that it will not open up when the device is carried. A handle may be secured at one end of the base part to facilitate 15 carrying.

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1 SHEET

COMPLETE SPECIFICATION

This drawing is a reproduction of the Original on a reduced scale.

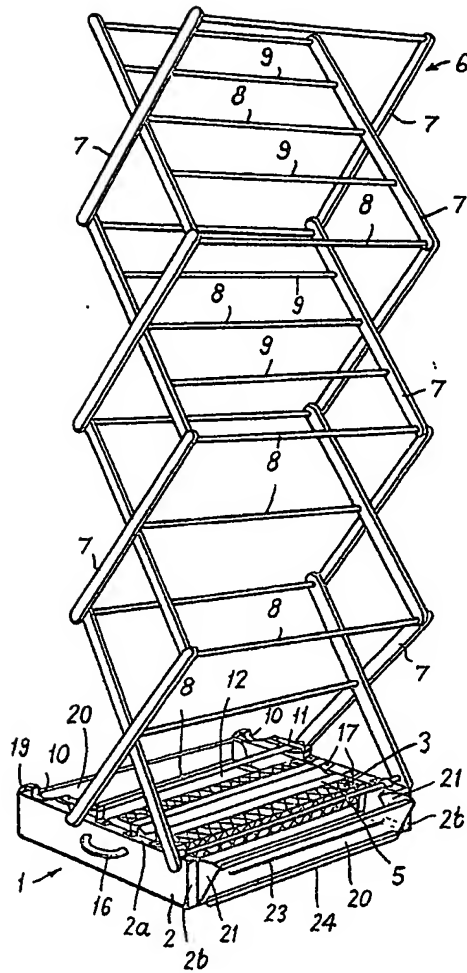


Fig. 1

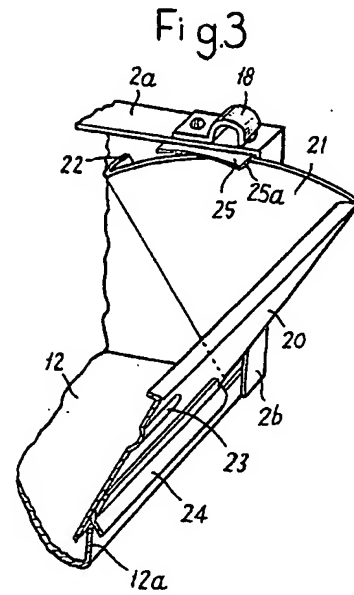


Fig. 3

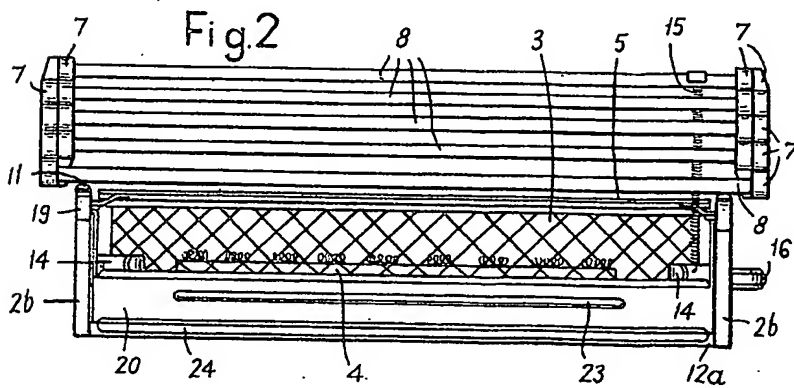


Fig. 2